

1. (Amended) A method for routing packets among a plurality of nodes in a computer system, the method comprising:

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receiving a first control packet in a first node of said plurality of nodes, said first node comprising a plurality of control packet buffers, each of said plurality of control packet buffers assigned to a different one of a plurality of virtual channels;

determining a first virtual channel of said plurality of virtual channels to which said first control packet belongs;

storing said first control packet in a first control packet buffer of said plurality of control packet buffers, said first control packet buffer assigned to said first virtual channel;

receiving a first data packet specified by said first control packet; and

storing said first data packet in a first data buffer of a plurality of data buffers within said first node, each of said plurality of data buffers assigned to a different one of said plurality of virtual channels which includes at least one control packet which specifies a corresponding data packet.

9. (Amended) A computer system comprising:

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a first node configured to transmit a first control packet; and

a second node coupled to receive said first control packet from said first node, wherein said second node comprises a plurality of control packet buffers, and wherein each of said plurality of control packet buffers is assigned to a different one of a plurality of virtual channels, and wherein said second node is configured to store said first control packet in a first control packet

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buffer of said plurality of control packet buffers responsive to a first virtual channel of said plurality of virtual channels to which said first control packet belongs, and wherein said second node further comprises a plurality of data buffers, each of said plurality of data buffers assigned to a different one of said plurality of virtual channels which includes at least one control packet which specifies a corresponding data packet, and wherein said first node is configured to transmit a first data packet specified by said first control packet, and wherein said second node is configured to store said first data packet in a first data buffer of said plurality of data buffers, said first data buffer assigned to said first virtual channel.

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14. (Amended) The computer system as recited in claim 9 wherein, if said second node is a destination of said first control packet, said second node is configured to remove said first control packet from said first control packet buffer and to respond to said first control packet.

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17. (Amended) The computer system as recited in claim 9 further comprising a third node coupled to receive packets from said second node, wherein, if said second node is not a destination of said first control packet, said second node is configured to remove said first control packet from said first control packet buffer and to forward said first control packet to said third node.

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20. (New) The method as recited in claim 1 wherein each control packet included in at least one virtual channel of said plurality of virtual channels does not specify a data packet, and wherein none of said plurality of data buffers is assigned to said at least one virtual channel.

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21. (New) The computer system as recited in claim 9 wherein each control packet included in at least one virtual channel of said plurality of virtual channels does not specify a data packet, and wherein none of said plurality of data buffers is assigned to

said at least one virtual channel.

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22. (New) A node coupled to receive a first control packet and a first data packet specified by said first control packet, the node comprising:

A5 a plurality of control packet buffers, wherein each of said plurality of control packet buffers is assigned to a different one of a plurality of virtual channels;

a plurality of data buffers, each of said plurality of data buffers assigned to a different one of said plurality of virtual channels which includes at least one control packet which specifies a corresponding data packet; and

circuitry configured to store said first control packet in a first control packet buffer of said plurality of control packet buffers responsive to a first virtual channel of said plurality of virtual channels to which said first control packet belongs, and further configured to store said first data packet in a first data buffer of said plurality of data buffers, said first data buffer assigned to said first virtual channel.

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23. (New) The node as recited in claim 19 wherein, if said node is a destination of said first control packet, said circuitry is configured to remove said first control packet from said first control packet buffer, and wherein said node is configured to respond to said first control packet.

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24. (New) The node as recited in claim 20 wherein said circuitry is further configured to remove said first data packet from said first data buffer and, wherein said node is configured to process said first data packet.

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25. (Node) The node as recited in claim 21 further comprising a cache and a memory controller, and wherein said node is configured to provide said first data packet to one of

said cache and said memory controller responsive to said first control packet.

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~~26~~. (New) The node as recited in claim ¹⁹~~22~~ wherein, if said second node is not a destination of said first control packet, said circuitry is configured to remove said first control packet from said first control packet buffer and to forward said first control packet to another node.

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~~27~~. (New) The node as recited in claim ²²~~26~~ wherein said circuitry is further configured to remove said first data packet from said first data buffer and to forward said first data packet to said another node.

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~~28~~. (New) The node as recited in claim ¹⁹~~22~~ wherein said circuitry is configured to determine said first virtual channel to which said first control packet belongs by decoding a command field of said first control packet.

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~~29~~. (New) The node as recited in claim ¹⁹~~22~~ wherein each control packet included in at least one virtual channel of said plurality of virtual channels does not specify a data packet, and wherein none of said plurality of data buffers is assigned to said at least one virtual channel.

REMARKS

Claims 1, 3-9, and 12-29 remain pending. In the present Office Action, claims 1-4 and 6-13 were rejected under 35 U.S.C. § 102(e) as being anticipated by Naven, U.S. Patent No. 5,936,956 ("Naven"). Claims 5 and 14-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Naven. Applicants respectfully traverse these rejections and request reconsideration.

The Claims are Patentable Over Naven

Applicants respectfully submit that each of claims 1, 3-9, and 12-29 recites a combination of features not taught or suggested in Naven. For example, claim 1 recites a combination of features including: